

12

EUROPEAN PATENT APPLICATION

21 Application number: **86110188.9**

51 Int. Cl.⁴: **F02F 1/24**

22 Date of filing: **24.07.86**

30 Priority: **31.07.85 IT 2177885**

43 Date of publication of application:
04.02.87 Bulletin 87/06

64 Designated Contracting States:
AT BE CH DE FR GB LI NL SE

68 Date of deferred publication of the search report:
05.08.87 Bulletin 87/32

71 Applicant: **Dott. Vittorio Gilardoni S.p.A.**
1, Via Marconi
I-22054 Mandello del Lario Como(IT)

72 Inventor: **Panzeri, Umberto**
Frazione Castello Bella Vista, 1
I-22043 Galbiate Como(IT)

74 Representative: **Marietti, Giuseppe**
CENTRO DI CONSULENZA IN PROPRIETA'
INDUSTRIALE Viale Caldara, 43
I-20122 Milano(IT)

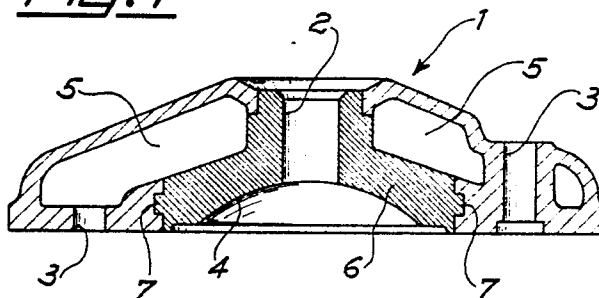
54 **Cylinder head for internal combustion engines.**

57 The present invention concerns a cylinder head for reciprocating internal combustion engines, in particular for high speed engines with spontaneous or controlled ignition.

The cylinder head according to the invention is characterized by the fact that the wall separating the combustion chamber from the cooling fluid is made, at least in part, of copper or of an alloy of copper having a high thermal conductivity coefficient.

This cylinder head, for the same area of heat exchange, allows a reduction of the temperature of the internal wall of the combustion chamber, allowing higher compression ratios to be used without the phenomenon of knocking, or the use of fuels with lower knock ratings.

Fig. 1





DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.4)
X	FR-A- 910 485 (ATELIERS DE MECANIQUE DU CENTRE) * Page 1, line 1 - page 2, line 84; figures 1-6 *	1,2,6	F 02 F 1/24
Y		3,4	
X	GB-A- 583 806 (BRISTOL AEROPLANE CO.) * Page 3, line 75 - page 5, line 59; figures 1,2 *	1	
Y		3	
Y	US-A-2 716 969 (LANG) * Column 1, lines 15-29; figures 1-5 *	4	
			TECHNICAL FIELDS SEARCHED (Int. Cl.4)
X	GB-A- 567 660 (WESLAKE) * Page 2, line 63 - page 4, line 128; figures 1-4 *	1,5,6	F 02 F
X	US-A-1 693 520 (KONDO) * Page 1, line 1 - page 2, line 3; figure 1 *	1-3	
A	GB-A- 408 875 (GARDNER)		
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 24-04-1987	Examiner KOOIJMAN F.G.M.
CATEGORY OF CITED DOCUMENTS			
X : particularly relevant if taken alone		T : theory or principle underlying the invention	
Y : particularly relevant if combined with another document of the same category		E : earlier patent document, but published on, or after the filing date	
A : technological background		D : document cited in the application	
O : non-written disclosure		L : document cited for other reasons	
P : intermediate document		& : member of the same patent family, corresponding document	





DOCUMENTS CONSIDERED TO BE RELEVANT

Page 2

DOCUMENTS CONSIDERED TO BE RELEVANT			Page 2
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.4)
A	PATENT ABSTRACTS OF JAPAN, vol. 7, no. 230 (M-249)[1375], 12th October 1983; & JP-A-58 124 045 (SUZUKI JIDOSHA KOGYO K.K.) 23-07-1983 -----		
			TECHNICAL FIELDS SEARCHED (Int. Cl.4)
The present search report has been drawn up for all claims			
Place of search THE HAGUE	Date of completion of the search 24-04-1987	Examiner KOOIJMAN F.G.M.	

CATEGORY OF CITED DOCUMENTS

X : particularly relevant if taken alone
Y : particularly relevant if combined with another document of the same category
A : technological background
O : non-written disclosure
P : intermediate document

T : theory or principle underlying the invention
E : earlier patent document, but published on, or after the filing date
D : document cited in the application
L : document cited for other reasons
& : member of the same patent family, corresponding document